

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001500**Date Inspected:** 14-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Xu Le Feng, Ye Yong Jun, Sha Zi Cui			CWI Presenting	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** Tower Mock-ups and OBG**Summary of Items Observed:**

The Quality Assurance (QA) Inspector Gregory Bertlesman arrived on site at the Zhenhua Port Machinery Company facility on Changxing island, China to periodically monitor welding and Quality Control functions. While on site the Quality Assurance Inspector observed and/or discovered the following.

Bay 1

The Quality Assurance Inspector observed ZPMC squaring the length of closed ribs on the milling machine. Eight ribs were stacked and being milled simultaneously. The Quality Assurance Inspector measured the ribs to be approximately five meters in length, 12 millimeters in thickness and 790 millimeters in width. The Quality Assurance Inspector observed ZPMC drilling bolt holes in the closed ribs. ZPMC was observed beveling closed ribs in preparation for the partial joint penetration connection to the deck plate. ZPMC Quality Control would measure the bevel angle and record the values on the closed rib. The general appearance of the bevel appeared to be rough and contain sharp edges. After beveling, ZPMC was observed bending the closed ribs and performing dimensional inspections.

Deck Plate Welding**Production Monitoring Test (PMT)**

The Quality Assurance Inspector was present for production monitoring tests scheduled for 0800. The Quality Assurance Inspector randomly performed an inspection of the joint preparation and observed rough bevels and rust in the root area as illustrated in the digital photograph below. An incident report was generated pertaining to the issue. The commencement of the ZPMC production monitoring tests did not start until 1040. The Quality Assurance Inspector observed ZPMC Quality Control Inspector Sun Wei monitoring the welding. The welding

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parameters were recorded in an on site log for future review. After the gas metal arc welding root pass was complete ZPMC was observed grinding the tack weld areas in preparation for the submerged arc welding cover pass. Below is a digital photograph illustrating the grinding in progress. ABF representative Warren Buehler was observed measuring the amount of under fill upon completion of the PMT. Below is a digital photograph of Mr. Buehler utilizing a bridge camber gauge to obtain the measurement. The submerged arc welding of three closed ribs for qualification of six welding operators was completed at 1410. There were various representatives from ZPMC/ABF and Caltrans present.



Summary of Conversations:

As stated in the contents of the above report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Bertlesman,Greg
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Quality Assurance Inspector

Reviewed By:	Cuellar,Robert
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QA Reviewer
